

Referral pattern to the allergist for hay fever in a health-care system with open access to specialists

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Little is known about referral patterns to the allergist for hay fever. In a system with open access to the specialist, we investigated the reasons for consulting an allergist in 126 patients who completed a questionnaire on their first visit. Both sexes were equally represented, the median age was 29 years, the duration of the disease and the duration of seasonal symptoms were 9 years and 10 weeks (median), respectively, and 54% of patients reported a history suggestive of asthma. The symptoms were highly variable; on average, 5.6 on a 10-cm visual analog scale. Most of the patients (94%) had been treated for hay fever before. Only 30% were referred by another physician, the rest being self-referred. The reasons for referral were investigated. The overall motivation to consult was related to symptom severity in 63% of the patients; 37% consulted for other reasons, including an expectation of greater “know-how” on the part of the allergist concerning specific diagnosis, treatment, and advice or counseling. The stimulus triggering the consultation was clearly not related to symptoms or disease in 25% of the cases. We conclude from these data that many patients are clearly interested in benefiting from the professional skill of a fully trained allergist.

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The prevalence of hay fever varies from one country to another, but averages 10–15% (2). In Switzerland, the prevalence of hay fever rose from 9.6% in 1985 to 12.2% in 1991 (29, 30). In Denmark, over a 1-year period, 1% of the population consulted a general practitioner (GP) for hay fever, with an average of 4.4 visits per year (19).

For diseases other than allergy, the referral process to a specialist has been widely studied in the UK and North America. Most investigations have explored the rate of referral by GPs to specialists or hospitals; they aimed to understand the reasons or factors influencing referral rates, sometimes with contradictory results (4, 12, 14, 16). In addition, the appropriateness of the decision to refer and agreement for referral among GPs, consultants, and patients have been studied (5–7), sometimes with major differences within countries, as in a study comparing The Netherlands and England (8). Grace & Armstrong (6) have observed a significant lack of agreement among GPs, consultants, and patients, with a total percentage of agreement varying from 21 to 49%. At least one of the three parties agreed that

the GPs could have done more before referral (in 79% of cases) and that they might have managed without referral (in 70% of cases). Israeli consultants perceived that over 30% of referrals are unnecessary (7). Lack of communication between GPs and consultants has been observed, caused by an absent or incomplete referral letter from the GPs (7, 8, 13), and by the absence of feedback by the consultants (13). Various ways of improving communication between the parties concerned have been discussed (13, 15).

Although less extensively studied, the question of self-referral by patients has also been addressed, mainly in emergency departments. In The Netherlands, it has been observed that among emergency department patients, 46% were self-referred: these patients were younger, more likely to belong to an ethnic minority, and less often hospitalized than patients referred by their GPs; the authors concluded that social and psychiatric problems seemed to be more likely in self-referred patients (11). Similarly, a UK study concluded that patients' perception of their health-related problems and of their access to

their GP were the main determinants of self-referral (21). Many self-referred patients have first seen their GP and then come for a second opinion; these patients should not be underestimated since they are as likely to be admitted (17) and may suffer from significant disorders (10). For specific health problems such as asthma and myocardial infarction, self-referral has been shown to be appropriate when studied (1, 18, 27).

Little is known about referral patterns to an allergist, particularly for seasonal rhinoconjunctivitis. Our study aimed to describe the type of patient consulting allergy specialists and the mode of referral for such a common and generally benign medical condition as hay fever. In the Swiss health-care system, over 99% of the population has health insurance coverage, mainly through sickness funds as well as through nationalized and private insurance companies. Open access to GPs and to specialists is available.

Material and methods

Between June and August 1992, new adult patients (older than 16 years) with a history of hay fever, whether the diagnosis was confirmed by clinical and laboratory examination or not, were included and filled in a questionnaire. They attended four allergy clinics in the French (two in Lausanne, one in Sion)- and Italian (one in Lugano)-speaking parts of Switzerland. Patients whose chief complaint was related primarily to asthma or other allergic conditions were excluded.

The questionnaire included the following items: *demographic data* (sex, age, socioprofessional status); *information on medical history* (duration of the disease in years, duration of the seasonal symptoms in weeks, presence of associated lower respiratory symptoms, and previous treatment); *information on the mode of referral* (by a GP, another specialist, or self-referral, which corresponds here to a patient's consulting the allergist directly); *the primary reason for consultation as perceived by the patient*; and, if any, the "iatrotropic stimulus", or, in other words, the particular reason or event which triggered referral, which is often different from the chief complaint. The *intensity of the symptoms of hay fever* (eye discomfort, nasal obstruction, nasal pruritus, rhinorrhea, sneezing) was evaluated by a 10-cm visual analog scale varying from "no symptoms" to "maximum possible intensity of the symptoms".

Descriptive statistics were used (median, percentile 25 and 75), and statistical testing was done with nonparametric tests: the Mann-Whitney rank-sum test for comparison of two groups; the Kruskal-Wallis analysis for comparison of three or more groups.

Results

A total of 126 patients answered the questionnaire; men and women were equally represented ($n = 63$). The median duration of the disease before consultation was 9 years (lower quartile 4, upper quartile 15). The majority of the patients had seasonal symptoms for more than 2 months a year, with a median of 10 weeks (8–14). Patients from the Italian-speaking part of Switzerland had seasonal symptoms for a longer period (18 weeks (12–24)) due to an extended pollen season. A total of 118 (94%) had already been treated in the past for the same condition. Lower respiratory symptoms were reported by 68 patients (54%) upon questioning.

Symptoms of hay fever were highly variable among subjects and across symptom types, but, on the whole, they were moderate, with a median average global score of 5.6 on a maximum of 10. We could not find any significant difference, in relation to referral pattern (Fig. 1) and to several control variables such as age, sex, duration of disease, duration of seasonal symptoms, and geographic location of the clinics. Socioprofessional status might have influenced referral; the group "professional, executive" had a lower average global score than the group "unskilled workers" 3.9 (3.1–4.4) vs 6.5 (6.0–7.3); $P < 0.02$; however, only eight patients belonged to each group. The seven patients without previous treatment also had a lower average global symptom score than the treated ones, 3.8 (2.4–5.7) vs 5.6 (4.3–6.7); $P < 0.02$.

Referral

Only 38 patients (30%) were referred by a physician, 88 (70%) being self-referred. Among the latter, 35 (40%) said they consulted on their own initiative, 53 (60%) being motivated by others (friends, family members). There were slightly more patients complaining of lower respiratory symptoms among those

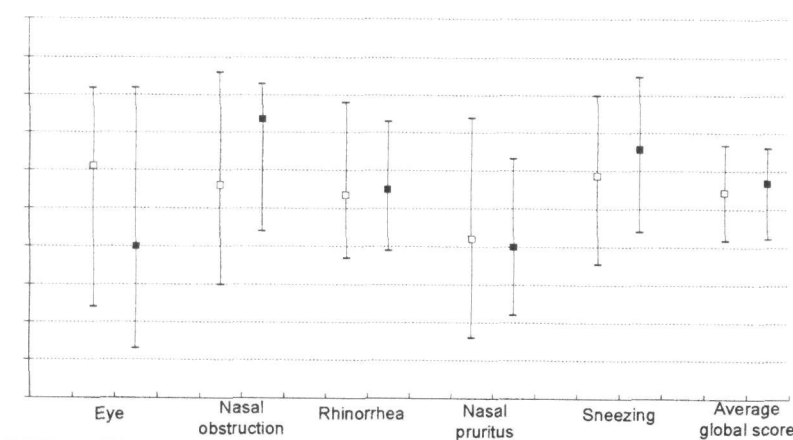


Fig. 1. Intensity of hay fever according to various symptoms and to average global symptoms score; median, percentile 25 and 75 – patients self-referred □ ($n = 88$) and physician-referred ■ ($n = 38$).

referred by a physician, although this difference was not statistically significant: odds ratio 1.7 (9.5% confidence interval: 0.73–4.0). There was no difference according to mode of referral between the clinics.

Reason for referral

The reason or reasons for the consultation were evaluated by means of two open questions:

- 1) Why did you consult?
- 2) Is there any special event which triggered your decision to consult?

The patients could give more than one answer to both questions. The first question was generally well understood, but sometimes it contained answers to the second one. The second question was clearly more difficult, as reflected by the proportion of “no” or “ditto” answers. Two readers (authors C.F. and B.B.) classified the answers to these two questions into several categories, with a percentage agreement of 86.5% for question 1) and 88.9% for question 2). In case of disagreement, the final classification was easily achieved after discussion. Since an answer could have several items (more than one reason to consult), the results are given in percentage of the total number of items, and not of the patients. Table 1 shows the type and proportion of answers to the first question (reason for referral). Answers to

Table 1. Reasons for referral to allergist for hay fever, as given by patients (sum is greater than number of patients, as some gave more than one answer)

Reason for referral		n	%
Related to symptom severity: 63%	Duration of disease	14	7
	Increased severity of symptoms	33	17
	New symptoms	31	16
	Increased duration of seasonal symptoms	9	5
	Unspecified	35	18
Looking for specialist's skill: 37%	Optimal treatment	24	12
	Best advice and counseling	4	2
	Specific and accurate diagnosis desired	23	12
	Unspecified	21	11

Table 2. Events or stimuli triggering referral to allergist for hay fever, as listed by patients (sum is greater than number of patients, as one of them gave two answers)

Events or stimuli triggering referral		n	%
Related to symptoms or disease: 54%	New aspect of the disease	12	9
	Unspecified	63	46
Unrelated to symptoms or disease: 25%	Similarity to relative's disorder	4	3
	Life events	9	7
	External influence	21	15
	Missing or no answer	28	20

this question were, for instance: “Because of this terrible hay fever”, “I want to know what I am allergic to and to receive the best treatment”, “My GP has referred me because of my terrible symptoms”.

Table 2 shows the type and proportion of answers to the second question. Answers were, for instance: “My cousin has been treated successfully by this allergist”, “I have been called up for military service and I want a certificate of exemption”, “I want to get pregnant”, “My wife made the appointment”.

Discussion

This study indicates that adult Swiss patients suffer moderate symptoms when they consult an allergist. Most of them were symptomatic for more than 2 months per year and had been sick for several years, and almost all had already received treatment, meaning that the vast majority had been seen previously by their GP or another specialist. However, the majority of the patients were self-referred, and among them most referrals were triggered by relatives.

Lower respiratory symptoms were reported by 54% of the patients. This proportion appears to be higher than the 24% found in a large survey in Switzerland in 1985 (29), confirmed in 1994 in the Italian-speaking part (23%) (3), although the prevalence of asthma could reach 38% in some reports (22). In addition, the occurrence of nonspecific bronchial hyperresponsiveness was high in allergic rhinitis, reaching 43–81% (20, 23). Even though the existence of lower respiratory symptoms was not confirmed by lung function testing, the high proportion of patients reporting such symptoms found in this study might reflect the referral of patients with more active disease.

Other studies assessing physician utilization or social and demographic determinants of consulting have shown that women are more likely to consult than men (9, 25). In our study, men and women were equally represented. However, in people younger than 30, the prevalence of hay fever was generally higher in men (2, 19). Hence, according to our data, there is the possibility of a greater desire for consultation in women. Socioeconomic status might also have an effect: in one study, a higher degree of education was associated with fewer visits (25), whereas, in another, the likelihood of self-referral positively correlated with social class (9). A greater prevalence of hay fever has been found to occur in the upper social classes. This relationship has been shown in Switzerland, where twice as many managers, senior civil servants, and other senior employees report hay fever than unskilled workers (13.8% vs 6.5%) (29), but this assertion is not universally accepted (28). Symptom score was of lower intensity in “profes-

sional, executive" patients, suggesting that these patients may have a lower threshold for consulting.

Self-referral depends greatly on the health-care system; in Switzerland, access to specialists is possible without previous consultation with a GP. Therefore, the role of "gatekeeper" is not as important as, for instance, in the UK. However, the continuous increase in health-care costs may favor this role in the future. Although self-referral has been advocated for specific conditions such as acute asthma or myocardial infarction (1, 18, 27) and open access for exercise testing encouraged (24), this cannot apply to hay fever. Over 2/3 of our patients were self-referred, but nearly all had been symptomatic for years and had been treated before, meaning that they had consulted their GP in the past. Therefore, the appropriateness of referral to the specialist is questionable. It might be that GPs are not properly trained to handle general patients and to select special cases for referral. It might also be that many patients are looking for specialized care. Indeed, the reason to consult was clearly related to an increase in the recent symptoms in about 2/3 of the cases, while, in 1/3 of the cases, it was related to the hope of a greater "know-how" concerning specific diagnosis, treatment, and advice or counseling on the part of the allergist. Patients ask for more information and partnership, which they may believe to be more freely available from the allergist. Interestingly, the stimulus triggering the consultation was related to symptoms or disease in barely half of the cases, and in a quarter of the cases it was clearly not related; external influence such as friends or family advice and newspaper or other media information played a role as well.

No data are available to determine whether specialized care offers benefits for patients suffering from hay fever. However, allergic rhinitis is an important risk factor for asthma, and half of the patients studied complained of lower respiratory symptoms. Some of these could have benefited from a specialized work-up: those allergic to both seasonal and perennial allergens, and those suffering from asthma. A recent study showed a clear benefit of specialized care for asthmatic patients, who were treated in an emergency room for an acute episode and thereafter followed by an asthma specialist in the allergy department of a Health Maintenance Organization ambulatory clinic, as compared to management by the GP. The patient referred to the specialist had fewer awakenings per night due to asthma and fewer relapses, and used significantly more antiinflammatory drugs (31). Preventive measures and education are important in caring for allergic patients, both in treatment and prophylaxis. Compliance may be enhanced if patients have a good understanding of their disease and share decision-making with the

physician. Allergists are also involved in counseling patients and their families; for instance, if a pregnancy is desired by atopic parents, preventive measures could be implemented when the parents are motivated (32). Immunotherapy should be initiated only after precise diagnosis in order to avoid under- or overtreatment, and it should be done under the supervision of an allergist or a trained physician. This therapy has been proved useful in patients with severe hay fever refractory to medical treatment (26).

Our study allows a better understanding of the referral pattern of patients in the Swiss health-care system with open access to specialists. The data suggest that many patients decide to consult an allergist of their own accord, one often cited motivation being that they appreciate the "know-how" of specialists and their ability to give proper information on their disease. Further studies should assess possible differences in outcome of patients treated by GPs and allergists for hay fever.

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